

Application Serial No.: 10/511,287
Am dt. dated May 3, 2006
Reply to Non-Final Office Action of November 3, 2005

LISTING OF CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method for collecting animals living on or in a water bottom, ~~such as crustaceans and shellfish and fish~~, wherein a collecting device is moved over the bottom in a first direction, which collecting device is provided with means for moving the animals from or off the water bottom, ~~in particular~~ said means including at least one tine that can penetrate into the bottom and with which said animals can be taken or forced from or off the bottom, while said at least one tine is provided with fluid outlet means through which, under pressure, a fluid, ~~in particular~~ water is forced into the bottom, such that a top layer of the bottom is stirred up and animals living therein or thereon are dislodged, which animals are caught in the collecting device, and wherein detection means are provided on the collecting device in front of the at least one tine, when viewed in said first direction, with which the presence of animals in or on the bottom is detected, while operating means are also provided on the collecting device for moving the at least one tine, which are activated on the basis of signals of said detecting means, the arrangement being such that the at least one tine is only moved into the bottom when the detecting means in front of the respective tine detect the presence of animals in or on the bottom, and is moved from the bottom again when no more animals are detected in front of the respective tine.
2. (Currently Amended) A method according to claim 1, wherein the collecting device is moved in said a first direction over the bottom and the fluid is forced into the bottom in approximately the same direction.

3. (Currently Amended) A method according to claim 1, wherein the fluid is introduced into the bottom less than 25 cm, ~~more particularly less than 10 cm and preferably between 0 and 7 cm~~ below the surface of the bottom.

4. (Canceled)

5. (Currently Amended) A method according to claim 1, wherein, viewed in said first direction, in front of the at least one tine, detecting means are provided with which the presence of animals in or on the bottom is detected, while operating means are provided for controlling electric means arranged near the tines, for generating at least one of current impulses, and/or an electric field, and a and/or magnetic field, which means are activated on the basis of signals of said detecting means, the arrangement being such that said electric means are only activated when the detecting means in front of the respective tine detect the presence of animals in or on the bottom and are moved from the bottom again when no more animals are detected in front of the respective tine.

6. (Currently Amended) A method according to claim 1, wherein the animals are detected with the aid of sound, ~~in particular ultrasonic sound measurement~~.

7. (Previously Presented) A method according to claim 1, wherein cockles or like shellfish or crustaceans are pushed from the bottom with the aid of the at least one tine and are then discharged upwards to a collecting means on a craft.

8. (Previously Presented) A method according to claim 1, wherein fish are chased from the bottom and are caught in a net, cage or like capturing means.

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9. (Currently Amended) A device for collecting animals living in or on the water bottom, provided with:

supporting means for support on a water bottom;

detecting means supported on said supporting means for detecting animals in or on the water bottom; and

means for moving the animals from of off the water bottom, said means for moving the animals being supported on said supporting means and being drivable on the basis of a signal to be delivered by the detecting means.

10. (Currently Amended) A device according to claim 9, wherein the means for moving the animals from or of off the water bottom comprise at least one tine which, during use, can extend below a plane defined by the undersides of the supporting means, at least into the bottom, and water supply means for, during use, introducing water under pressure into the bottom, at most at a gentle angle relative to ~~and preferably approximately parallel to~~ said plane, at least to a bottom over which the device can be moved.

11. (Original) A device according to claim 10, wherein a row of tines is provided.

12. (Currently Amended) A device according to claim 10, wherein means are provided for moving the or each tine between a first position in which the respective tine extends, during use, at least partly into the bottom, and a second position in which the respective tine extends at least partly ~~and preferably wholly~~ above the bottom.

13. (Currently Amended) A device according to claim 10, wherein the or each tine is provided with a free end extending, at least in a position of use, ~~in particular in the first position~~, approximately parallel to said plane, at least the top side of the water bottom, while the water supply means are arranged for introducing water approximately parallel to this free end.

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14. (Currently Amended) A device according to claim 9, wherein the means for moving the animals from off the water bottom comprise electric or mechanical means for generating at least one of a current surge, and/or a magnetic field, an and/or electric field and and/or a vibration field.

15. (Original) A device according to claim 14, wherein a series of electric means is provided, as well as a series of detecting means, such that over a relatively large width animals can be detected, at different positions in front of the device and, depending thereon, different electric means in the series can be operated.

16. (Currently Amended) A device according to claim 9 further comprising and a craft, wherein the device is at least connected to the craft by a flexible hose or tube through which water can be guided to the device and/or animals can be moved from the device to the craft.

17. (New) A method for collecting animals from the bottom of a body of water comprising the steps of:

moving a collecting device along the bottom surface of a body of water;
detecting the presence of animals in front of said collecting device;
applying a fluid under pressure below the bottom surface of the body of water upon detection of the presence of animals in front of said collecting device; and
collecting animals dislodged by said applied fluid under pressure.

18. (New) A method as defined in Claim 17, wherein said step of applying a fluid under pressure includes the step of inserting a tine provided on said collecting device below the bottom surface, said tine including a nozzle for applying said fluid under pressure.

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19. (New) A method as defined in Claim 18, further including the step of retracting said tine from below the bottom surface upon detection of the absence of animals in front of said collection device.

20. (New) A device for collecting animals from the bottom of a body of water comprising:

a support frame having at least one runner movable along a bottom surface of a body of water;

an animal detector provided on said support frame for detecting the presence of animals in the vicinity of said support frame;

an animal mover provided on said support frame, said animal mover being activatable by said animal detector upon the detection of the presence of animals to move the detected animals from the bottom of the body of water; and

an animal collector for collecting the moved animals.

21. (New) A device as defined in Claim 20, wherein said animal mover comprises at least one tine movable between a first position, wherein said tine is inserted below the bottom surface of the body of water, and a second position, wherein said tine is retracted from the bottom surface of the body of water, said tine being driven by said animal detector and including a fluid outlet for applying a fluid under pressure into the bottom surface of the body of water when said tine is in said first position.